



**BURLINGTON
ENVIRONMENTAL INC.**

CHEMPRO Division

36
WA 2917

5/1/1991

Submitted to Ecology
May 1, 1991

**PIER 91 FACILITY
PART B PERMIT APPLICATION REVISIONS**

FILE COPY

NOTE: Using a draft copy of the January 25, 1991 NOD for Chempro's Washougal Facility, Ecology highlighted selected NODs and requested that Chempro respond to the same questions for the Pier 91 Facility. The request was made by D. Brown (Ecology) at a meeting with Chempro on February 1, 1991; a copy of the draft Washougal Facility NOD highlighted to identify questions relevant to Pier 91 was handed to C. Buller (Chempro) at that time. The May 1, 1991 submittal date for Chempro's response and accompanying Part B permit application revisions was communicated in a letter from C. Gilder (Ecology) to C. Buller (Chempro) dated March 6, 1991.

Brackets have been used to indicate revisions necessary to change Ecology's NODs for the Washougal Facility into questions relevant to TSD operations at the Pier 91 Facility. References to specific page numbers in the Washougal Facility permit application have also been deleted from these questions. The term "NOD" has been changed to the word "question" throughout this response, since the request for a response to these questions was not issued as an NOD for the Pier 91 Facility.

General Comments

Air Emissions. Be aware that EPA has adopted air emissions standards for process vents and equipment leaks. Revise the application to be consistent with these standards which are in 55FR25454. EPA has prepared guidance on the new rule; the publication number is EPA 450/3-89-021.

Response: Appendix F-8, Air Emission Monitoring Program for Process Vents and Equipment Leaks, has been added to the permit application to address this rule.

Land Disposal Restrictions. Revise the application, wherever necessary, to comply with the "third third" of the land disposal restrictions. Before the facility can ship waste for disposal, it



must be tested for compliance with the land disposal restrictions. If it does not meet requirements for disposal, it must be sent for appropriate treatment at a RCRA-approved facility.

Response: The appropriate portions of Section C, Waste Characteristics, have been revised to address the land disposal restrictions.

Waste Minimization Plan. EPA requires generators who treat, store, or dispose of hazardous waste to comply with waste minimization. All final hazardous waste management permit must contain requirements for a periodic certification of the waste minimization activities in accordance with 40 CFR §264.75 and §270.30(1)(9). These regulations require the generator to implement programs to reduce the volume and the toxicity of hazardous waste to the extent economically practicable. A site-specific Waste Minimization Plan to meet these requirements for the Washougal [Pier 91] Facility should be submitted with the response to this NOD [question].

Response: Chempro's current Waste Minimization Plan for the Pier 91 Facility is attached to this question Response.

Specific comments:

NOTE: To assist in referencing specific questions, Chempro has numbered the questions received from Ecology.

FACILITY DESCRIPTION AND GENERAL PROVISIONS

1. Section B1.6.[2]. For the distillation process the statement is made that: "If the liquid is a two phase system, it is decanted to separate the two phases. The water phase is blended as an alternative fuel." Does alternative fuel as used here mean "dangerous waste fuel"? Is the "water phase" tested for BTU value prior to mixing it as a dangerous waste fuel? The BTU value must be 5000 BTUs/lb for this phase to be mixed as a dangerous waste fuel. Please amend application as necessary.

Dangerous Waste Fuel. The Facility may blend a particular waste with other wastes to make dangerous waste fuel only if tests demonstrate that the waste has a BTU value of at least 5000 BTUs per pound (see Volume 48, page 11157 of the Federal Register). A waste with less than 5000 BTU per pound cannot be blended with other wastes to produce a dangerous waste fuel, either on-site or off-site. Correct the appropriate sections of the application, including the Waste Analysis Plan and the description of the processes at the facility, to ensure that any wastestream destined for fuel blending has a BTU of at least 5000 BTU/lb.

Response: The language in Section B1.6.2, Process Descriptions by Wastestream, has been revised to delete the reference to alternative fuel, and to indicate the actual fate of the water phase. The water phase which has less than 5,000 Btu/lb is separated by distillation or decanting and is sent offsite to a RCRA-authorized TSD for incineration.

Wastes destined for energy recovery as dangerous waste fuel in industrial boilers or furnaces which have not certified compliance in accordance with 40 CFR Part 261.103 will contain at least 5,000 Btu/lb, unless it can be demonstrated that a material is burned "Solely as an Ingredient."

For off-site generated wastes, fingerprint screening is used to verify the waste received matches the waste profiled. If the waste does not match the profile, the waste is not placed into dangerous waste-derived fuels without verification that Btu value is greater than 5,000 Btu/lb.

For on-site generated wastes, the Btu value is demonstrated by the chemical composition or heat of combustion testing to be greater than 5,000 Btu/lb prior to being placed into dangerous waste-derived fuels. For wastes which contain less than 5,000 Btu/lb, the dangerous waste must be treated to contain greater than 5,000 Btu/lb prior to being placed into dangerous waste-derived fuels.

Wastes blended for dangerous waste-derived fuels that are sent to cements kilns that have certified compliance with emissions standards for metals, HCl, Cl₂, particulates, and CO are not required to have a minimum of 5,000 Btu/lb. Accurate estimation of Btu values can be made based on chemical composition of a waste. Sections B1.6.2, Process Descriptions by Wastestream, and C2.0, Waste Analysis Plan, have been revised to address this.

2. Section B1.6.[2]. Please specify all parameters that will be used to determine whether waste materials can be used as a component of dangerous waste fuels. Specifically state the BTU value must be at least 5000 BTUs/lb (see Table B1-3 and [text]).

Response: Until cement kilns burning dangerous waste fuels have certified compliance with the emission standards, dangerous waste used as dangerous waste fuels will contain greater than 5,000 Btu/lb, unless it is material burned "Solely as an Ingredient."

The determination of disposal options for incoming dangerous waste is made during profile review. Only materials which contain at least 5,000 Btu/lb or can be burned "Solely as an Ingredient" are approved for dangerous waste-derived fuels.

The Btu value of a waste is a direct correlation of the chemical composition and heat of combustion value for individual chemicals, and therefore can be accurately determined by evaluation of the chemical composition provided on the profile. For those profiles where the Btu value cannot be determined by evaluation of the chemical composition, Btu testing is performed on a representative sample of the waste. In this way, the determination of whether a waste is appropriate for use as dangerous waste-derived fuels is made prior to receiving the waste.

After the industrial boiler or furnace has achieved certification of compliance as specified in 40 CFR Part 261.103, the determination of whether wastes are approved for blending into dangerous waste fuels will be based on blending requirements of the industrial boiler or furnace, and on operational considerations, as appropriate. Sections B1.6.2, Process Descriptions by Wastestream, and C2.0, Waste Analysis Plan, have been revised to address this.

3. Section B7.3. Include the MTCA cleanup standards (WAC 173-340) as criteria for a successful cleanup of a spill area.

Response: The text of Section B7.3, Clean Up and Management of Released Waste and Contaminated Materials, has been revised to include the MTCA Clean-up Standards.

4. Section B. Identify where accumulation areas for dangerous waste generated at the Facility will be located. Note that secondary containment for these areas will be required per WAC 173-303-200(1)(b). Include information in the permit application to support that new accumulation areas will meet the requirements in WAC 173-303-630(7).

Response: The Pier 91 Facility is a dangerous waste TSD facility with an interim status permit. As such, the generator requirements of WAC 173-303-200(1)(b) do not apply to this facility. On-site generated waste is stored in the same segregated secondary containment areas as wastes received from off-site. All waste storage areas at the facility meet the requirements of WAC 173-303-630(7).

5. Section B. Discuss the [wastewater discharge] permit in more detail in the application. This is relevant since [wastewater discharge] related issues may affect the construction and implementation schedule under the dangerous waste permit. Although Ecology understands that scheduling for the [wastewater discharge] permit is not under ChemPro complete control, please discuss the following issues.

- a. - Do the proposed changes in the operation of the Facility constitute a modification of conditions of the wastewater discharged from the Facility? (That is, will there be the need to modify and reissue the [wastewater discharge] permit prior to the required permit renewal date of [March 19, 1996]?)
- b. - Will there be additional constituents in the wastewater stream that will not be effectively treated by the Facility's wastewater treatment system?
- c. - Please discuss ChemPro's plans to upgrade the wastewater treatment facility. Specifically, will it be upgraded to accommodate water that will be generated by corrective action? What is the schedule for this activity?

Response: Proposed changes in operation of the Pier 91 Facility do not constitute a modification of conditions of wastewater discharged from the facility. It is not anticipated that the facility's wastewater discharge permit will need to be revised and reissued prior to the required Metro permit renewal date of March 19, 1996.

The Pier 91 Facility is currently involved in a wastewater discharge study to review TTO concentrations, as required by the facility's Metro wastewater discharge permit. Results of the TTO study will be used to determine whether any modifications to the existing wastewater treatment system are required. The TTO study is expected to be concluded by mid-June 1991; discussion of any need for modification of the existing wastewater treatment system will follow.

Extra discharge capacity for groundwater is included in the facility's Metro permit as reissued on March 19, 1991. Any prospective groundwater treatment system for the Pier 91 Facility will be designed and constructed in accordance with the facility's corrective action program. Schedules in the existing 3008(h) order for the facility do not identify specific dates, but rather identify turnaround times for workplans, engineering reports, etc. to be submitted to EPA.

WASTE CHARACTERISTICS

6. Section C.1. Why is spent carbon not included as a wastes that will be generated on site?

Response: The text of Section C1.1, Waste Characteristics, has been changed to include spent carbon from the carbon canisters.

7. Section C.1. Specify that dangerous wastes generated on site will be labeled at the point of generation.

Response: The text of Section C1.1, Waste Characteristics, has been revised accordingly.

8. Section C2.4.4. Please explain how conducting the treatability test for treatment processes at the Tacoma Facility relates to operations at ~~Washouga~~ [Pier 91]. For example, is this test conducted after it has been determined that the waste can not be treated at ~~Washouga~~ [Pier 91]?

Response: This test is typically performed at the Corporate Laboratory during profile acceptance to determine which Chempro Facility can appropriately manage a customer's waste. The treatability test is conducted at the time of testing for profile acceptance, after other testing or review of information indicates that the waste's characteristics and quantity indicate that the Tacoma Facility is likely to be the most appropriate facility for handling the waste. The treatability test is used during the process of profile acceptance for wastestreams potentially designated for handling at any Chempro facility. In addition, Tacoma Facility personnel perform the test upon receipt of wastes to help determine appropriate requirements for treatment at the facility.

9. Section C2.4.4. Note that the TCLP is currently the appropriate test in place of EP Toxicity. Please make the appropriate changes throughout the application.

Toxicity Characteristic Rule. Please revise other portions of the application to comply with the TC rule, which is found in 55FR26986 (June 29, 1990). Changes will be required in testing and waste handling procedures. Although EPA is initially responsible for implementing the rule, Ecology is modifying the state's Dangerous Waste Regulations to reflect these new requirements.

Response: Appropriate portions of Section C2.0, Waste Analysis Plan, have been revised accordingly.

10. Section C2.5. Please discuss whether the corporate lab meets QA/QC requirements that are equivalent to those for the Contract Laboratory Program (CLP) for analyses conducted for the ~~Washouga~~ [Pier 91] Facility, particularly those used to demonstrate compliance with permits conditions or other regulatory requirements. Provide similar discussion for any analyses conducted at the on-site laboratory for compliance demonstration. Discuss the corporate lab's involvement in the state lab accreditation program and how this relates to the analyses conducted for the ~~Washouga~~ [Pier 91] Facility. (See also Appendix C-3).

Response: Chempro followed EPA QA requirements and guidance documents when developing the corporate quality assurance program plan. Where applicable CLP QA/QC is incorporated into Chempro's program. The program meets with the approval of Ecology's Quality Assurance section, as demonstrated by accreditation of Chempro's Corporate Laboratory. Samples analyzed for permit monitoring requirements, eg. wastewater discharge samples, are analyzed at the Chempro Corporate Laboratory or at another Washington State Accredited Laboratory. The text of Section C2.5, Quality Assurance and Quality Control, has been revised to clarify this. Appendix C-3, Quality Assurance/Quality Control, has also been revised.

11. Appendix C-2. Discuss how representative the compatibility determination procedure will be of the actual consolidation of wastes in tanks. For example, will wastes be mixed in the same proportions, over the same time period, and with the same mixing intensity for the test procedures and for actual operations?

Response: The description of the Compatibility Determination Procedure in Appendix C-2 (Analytical Methods) has been revised to address these questions.

PROCESS INFORMATION

12. Section D2.4. Management practices for open sumps is to transfer liquids to Tank [2901], without analyses, if no contamination is suspected. At some point the content of the tank [is] analyzed and discharged if [wastewater discharge] permit limits are not violated. The following concerns regarding this practice should be addressed in the permit application:
- a. - As presented there is not clear way to enforce a requirement to analyze water suspected of being contaminated, nor criteria to require the liquid to be directed to another storage or treatment vessel. Please provide examples of conditions which would indicate that this water should be analyzed (examples might include: a known spill in the area; positive OVA readings in the head space of a water sample; a sheen on the water surface, decoloration of the water, turbidity, others). Also provide criteria used for not storing the liquid in Tank [2901]. If possible such conditions and criteria should be able to be independently evaluated so that objective enforcement could occur if necessary.
 - b. - Tank [2901 is] listed as RCRA exempt (see Table A1-1). However, under the proposed mode of operation, dangerous waste may inadvertently be stored in the Tank. Thus the Tank should be RCRA regulated and subject to all dangerous waste requirements for storage tanks. [It is] not [a] wastewater

treatment tank subject to a permit-by-rule exemption. Please provide additional justification for [this] tank being RCRA exempt, or update the application to account for [its] regulatory status under the dangerous waste rules.

Response: As already stated in Section D1.4, Tank and Sump Operations and Management Practices, if material is suspected of contamination, the material is analyzed. If the material is found to be contaminated, it is transferred to an appropriate storage vessel depending on storage availability and compatibility. The text in Section D1.4 also gives examples of reasons to suspect contamination of accumulated material. Proper operational practices, a contingency plan, and an inspection plan ensure the immediate detection of and response to spills and discharges of hazardous materials to sumps. Material that is suspected of contamination is not stored in Tank 2901 unless analysis confirms there is no contamination. Treated wastewater is tested prior to discharge to ensure the Metro discharge parameters are met, so that there is no chance of discharging contaminated materials.

Tank 2901 is part of the Washougal Facility wastewater treatment system. It is a wastewater storage tank, and as such is exempt from RCRA regulations, as clearly discussed in the EPA final rule (51 FR 25422) and subsequent interpretation (53 FR 34079). EPA has indicated that "any hazardous waste tank system that is used to store or treat the wastewater that is managed at an on-site wastewater treatment facility with a National Pollutant Discharge Elimination System (NPDES) permit or that discharges to a Publicly Owned Treatment Works (POTW), is exempt from the RCRA regulations." The Washougal Facility has a permit allowing discharge to a POTW (Metro). Tank 2901 is operated appropriately as specified in WAC 173-303-802, Permits by Rule. It meets the definition of "Waste water treatment units" as defined under WAC 173-303-040. This tank is therefore subject to a permit-by-rule exemption.

PROCEDURES TO PREVENT HAZARDS

13. Section F1.2. Discuss the appropriateness of providing warning signs in other languages suitable to the demographics of the Washougal [Pier 91] area.

Response: The demographics of the Pier 91 area do not indicate that signs in languages other than English would be appropriate to be displayed at the Pier 91 Facility.

CONTINGENCY PLAN

14. Note: This NOD was not included in the Washougal NODs sent to Chempro January 25, 1991. It was included in the draft copy of Washougal NODs dated January 10, 1991, and provided to Chempro February 1, 1991 by Doug Brown (Ecology), with notes indicating questions to address in the Pier 91 Part B Permit Application.

Section G4.2. Modify this and other appropriate sections of the application to require notification of authorities, and recording in operating records, for any size spill. WAC 173-303-145(1) requires the facility to report spills regardless of the quantity. While current language in WAC 172-303-145(1) requires reporting of spills onto the ground or into the ground water or surface water, Ecology is changing the definition of "spill or discharge into the environment" to include any spill, including spills into containment area. The amendments to Chapter 173-303 WAC is expected to be in effect by early 1991.

Response: Sections G3.0, Implementation of the Contingency Plan, and G4.2, Notification, have been revised accordingly.

15. Appendix G-2. Clean up Plan for Releases to Soil. The MTCA standards should also be met for satisfactory clean up of a spill area. Please include that criteria in this Appendix.

Response: The text of Appendix G-2 has been revised to include the MTCA Clean-up Standards.

CLOSURE PLAN AND CLOSURE COST ESTIMATES

16. Section I1.2. Standards for clean closure under WAC 173-303-610(2)(b) will require the removal of all hazardous substances under WAC 173-340 in addition to all dangerous waste constituents listed under WAC 173-303-9905 (or hazardous constituents in 40 CFR Part 261 Appendix VIII). Removal shall mean attaining the lower of the background mean plus two standard deviations or the compliance cleanup level of the Method B Residential Standards of WAC 173-340. For those substances not detected in background analyses, removal shall mean attaining either the compliance (standard) cleanup levels of the Method B Residential Standards of WAC 173-340 or the practical quantitation limit. (This also applies to [Sections I1.5.2] and [I1.5.3].

Note, this standard for clean closure significantly affects the process outlined in Appendix I-6 for demonstrating clean closure at the Facility. Specifically, it should be noted

that clean closure will be demonstrated when contaminant levels are the lower of background levels or the standards in WAC 173-340.

Response: The MTCA clean-up standards have been added to Sections I1.2, Closure Performance Standards, I1.5.2, Decontamination Procedures, and I1.5.3, Sampling and Analysis, as indicated.

17. Section I1.5.3. Eight background soil samples may not be sufficient to define background soil conditions (see more detailed comment under Appendix I-6).

Response: This approach to background soil sampling was based on extensive discussion of the topic with Ecology's Hazardous Waste Permits group in 1989. We have been told that Ecology's Hazardous Waste Permit group (with all new staff since 1989) is now re-evaluating closure guidance developed in 1989, but that a date for issuance of the revised guidance has not been scheduled. Chempro plans to leave the discussion of background soil sampling unchanged until the revised closure guidance is issued to avoid creating needless rounds of additional revisions even before the final nature and extent of Ecology's revised closure guidance has been determined. We are willing to meet with Ecology at any time to discuss the continued use and/or revisions of this approach in revised closure guidance being developed by Ecology.

18. Section I1.5.3. Analyses for Appendix IX constituents may not be sufficient. Dangerous waste constituents under WAC 173-303-9905 (or 40 CFR 261 Appendix VIII hazardous constituents) and other hazardous substances under WAC 173-340 may be required depending upon waste materials handled at the Facility. Please make note of this possibility in the application.

Response: Section I1.5.3, Sampling and Analysis, has been revised accordingly.

19. Section I1.5.3. Discuss the validity of choosing [17] bias and [51] random sampling locations. For example, note that a greater number of bias samples may be needed if there is a greater than anticipated occurrence of cracks in containment structures, or if other areas of concern exist at the Facility at the time of closure.

Response: As explained in the response to question #[17], the method of choosing biased and random sampling locations was based on extensive discussion of the topic with Ecology in 1989. This approach will remain unchanged until Ecology's revised closure guidance is issued (at a time not

yet identified by Ecology), in order to avoid unnecessary revisions before the final nature and extent of Ecology's revised closure guidance has been determined. We are willing to meet with Ecology at any time to discuss the continued use of and/or revisions to this approach in revised closure guidance being developed by Ecology.

The discussion of soil sampling and analysis for dangerous waste management areas already notes that the number of biased sampling locations will be based on locations of cracks or stains in secondary containment, visual observation of past repair locations, and repair records in the facility's operating log. The permit application text clearly states that the number of biased samples shown for locations of cracks or stains is only assumed for the purposes of estimating closure costs.

20. Section I3.0. Discuss whether upon satisfactory completion of the ongoing corrective action the standards for clean closure will be achieved. Demonstrate that the standards for the corrective action are at least as stringent as the standards for clean closure.

Response: A determination of satisfactory completion of corrective action is presently the authority of EPA. To date, proposed EPA Corrective Action rules published July 27, 1990, identify EPA's proposed media cleanup standards for groundwater, surface water, air and soils. A demonstration that the standards for corrective action are at least as stringent as the standards for clean closure is impossible for Chempro to make at this time. The only time such a demonstration would be feasible would be after all closure samples have been collected and analyzed and statistical evaluation is completed. Chempro questions the need to evaluate such an unpredictable issue.

Disposal of soil and concrete is not included in the closure cost estimates because the facility is on an active course of cleaning up contamination at the site, and for purposes of Part B closure cost estimates, it is assumed that corrective action will be completed before final closure of the facility. Within the proposed RCRA corrective action rule, EPA acknowledges that permit modifications may be required for closure as a result of corrective action. The cost estimates take into account the general assumptions in which releases which may occur at the facility will be completely cleaned up on an immediate basis, and that new and existing secondary containment and the ongoing tank integrity assessment program will prevent the potential for release under the containment pad.

21. Section I3.3. The statement is made that "It is assumed that all waste streams except some containerized wastes will be treated on site. On-site treatment cost will reflect current treatment cost using third party labor". Closure cost must be based on off site, as well as third party, treatment. Revise closure cost estimates to include transportation costs in order to fulfill this requirement.

Response: This subject was discussed in a meeting between Chempro and Ecology (February 1, 1991), and in a document submitted to Ecology (March 14, 1991). In accordance with the costs and scenarios presented in that document, and agreed to with Ecology, the Closure Plan (Section I and Appendix I-2) was revised in March 1991 to include contingency costs in the event of loss of treatment capacity at the Pier 91 Facility. These revisions were submitted to Ecology March 14, 1991.

22. Appendix I-6.

- a. The closure demonstration flow chart (as referenced here) is not included in this Appendix.
- b. Under "evaluation of background soil sample data" the statement is made that analytical data will be reviewed for statistical features such as distributional form. What tests will be used to determine the distributional form of the data? What procedure will be followed if the background samples are not normally distributed? On what bases will eight samples (or any other number of background samples) be determined to be a statistically reliable sample size to define background at the Facility? Please indicate how a statistically valid sampling for background concentrations will be demonstrated.
- c. The proposed approach for evaluating soil sample data for compliance with clean closure standards involves comparing sampling results to the upper 90% tolerance limit of the 95th percentile of Facility derived background. As alluded to above, this approach completely relies on a reliable statistical definition of background concentration for its validity. The following conditions for background concentrations must be met: an accurate mean; an accurate standard deviation; valid distributional form for the test to be performed (the statistical method proposed is particularly sensitive to the assumption of a normal distribution of data); and a sufficient sample size. The following describes some of Ecology's concern with the unrestricted use of this approach:
 - i. - Factors to calculate tolerance limits (K) are a function of sample size. Small sample sizes result in large values for K, which in turn results in larger

values for the upper 90% tolerance limit of a 95 percentile value (i.e., less conservative closure standards since the standard equals the mean plus $K \times \text{standard deviation}$). To illustrate, the values of K for sample sizes of 8 and 20 are 2.754 and 2.208, respectively. K values begin to level out between sample sizes of 20 or 30 and 100.

- ii. - The standard deviation and mean are the other factors which affects the magnitude of the upper tolerance limit. The greater the standard deviation, the greater the value of the upper 90% confidence limit of the 95 percentile value (i.e., less conservative closure standards). Using this approach is not appropriate if some of the background samples are affected by human activity, or if there is systematic difference in the naturally occurring concentrations (e.g., due to fill in certain portions of the Facility).
- d. The proposed approach for identifying noncompliance lacks incentives for precisely and accurately defining the standard deviation and mean of soil background, or for assuring an adequate sample size while doing so. For these reasons, the following should be addressed in the application:
 - i. State that Ecology will review and approve the proposed locations and statistical results for background soil sampling.
 - ii. Provide the statistical bases for identifying outliers as the mean plus four standard deviations, or propose and define another criteria.
 - iii. Provide information on how background samples in which potential contaminants are below detection or practical quantitation limits will be used in the proposed statistical approach outlined in the application.
 - iv. Provide other information identified in the above paragraph on "evaluation of background soil sample data".
- e. Appendix I-6 specifies that if the composited sample is one third the value of the cleanup criteria, then resampling will take place to determine whether any of the sampled areas contributing to the composite is greater than the cleanup standard. Whereas this is a good approach, it does not account for the situation where the cleanup standard is sufficiently close to the quantitation limit for the constituent that it may not be detected in the composite sample, even though a single sample may exceed the cleanup level. Please discuss this possibility in the application and actions that will be taken to account for it.

Response: As explained in the response to question #[17], methods discussed in Appendix I-6 for evaluating soil sample data were based on extensive discussion of the topic with Ecology in 1989. This approach will remain unchanged until Ecology's revised closure guidance is issued (at a time not yet identified by Ecology), in order to avoid unnecessary revisions before the final nature and extent of Ecology's revised closure guidance has been determined. We are willing to meet with Ecology at any time to discuss the continued use and/or revisions of this approach in revised closure guidance being developed by Ecology.

The closure demonstration flow chart for Appendix I-6 has been included with this set of revisions.

OTHER FEDERAL AND STATE LAWS

23. Section J. Include the Model Toxics Control Act Cleanup Regulations (WAC 173-340) as a state requirement that applies to operations at the Washougal Facility.

Response: Section J2.7, Model Toxics Control Act, has been added to Section J, Other Federal and State Laws.

OTHER REVISIONS:

Selected sections and appendices in the Washougal Facility Part B Permit application have been revised to address relevant questions. The sections and appendices revised for this reason are as follows:

Section B	Facility Description and General Provisions
Section C	Waste Characteristics
Appendix C-2	Analytical Methods
Appendix C-3	Quality Assurance/Quality Control
Section D	Process Information
Section F	Procedures to Prevent Hazards
Appendix F-8	Air Emission Monitoring Program for Process Vents and Equipment Leaks
Appendix G-2	Clean Up Plan for Release to Soil
Section I	Closure Plan and Closure Cost Estimates
Appendix I-2	Closure Cost Calculations for Maximum Waste Inventory
Section J	Other Federal and State Laws

Section A, forms 1 and 3, Appendix G-1, Letter of Authorization - Emergency Coordinators, Appendix J-1, and Section K, Certification, signatures have been revised to indicate a change in corporate management.

Section A was also revised to include new waste codes which have been adopted under RCRA by the U.S. EPA.

Section B3.3 (Shoreline Standard) has been deleted because the regulations requiring that the topic be addressed in this portion of the permit application [WAC 173-303-420 and 173-303-806(4)(xi)(F)] have been deleted. The SEPA Environmental Checklist (Appendix J-1) still contains information on whether the facility is located in a shoreline management area. The Siting Standards Demonstration for the Pier 91 Facility, submitted under separate cover May 1, 1991, also contains information on the facility's proximity to surface waters and wetlands.

The annual inflation factor for 1990 has been included in the closure cost estimate in Section I.

Appendix J-1, State Environmental Policy Act Environmental Checklist, has been revised to address comments presented to Chempro from Ecology in a letter dated March 6, 1991.

Attachment 1
CHEMPRO WASTE MINIMIZATION PROGRAM

PROGRAM SUMMARY

The Chemical Processors, Inc. (Chempro) Waste Minimization Program involves an ongoing company effort to reduce the volume and toxicity of generated wastes, and is consistent with the certification requirements of RCRA sections 3002(b) and 3005(h). The program was originally established in August 1985, however, it has been updated and now contains the following six program elements:

- (1) A Policy Statement - A written environmental company policy statement endorsed by Chempro senior management that declares the goal of continual waste reductions. The statement demonstrates upper management support for the program.
- (2) Waste Generation Characterization - A periodic survey of the wastestreams received, the treatment processes, and the subsequent waste generated. The waste generation characterization is used as a form of waste tracking.
- (3) Waste Reduction Goals - A periodic determination and prioritization of specific waste reduction goals. The establishment of specific waste reduction goals provides direction in Chempro's waste reduction efforts.
- (4) Waste Minimization Meetings - Periodic interdepartmental meetings between representatives from Regulatory Affairs, Engineering, and Operations. The meetings provide a formal mechanism in which waste reduction opportunities, goals, and solutions are recognized.
- (5) Program Summary - A periodic summary of waste minimization accomplishments. The summary includes any treatment modifications that have occurred that reduced the volume and/or toxicity of generated waste.
- (6) Waste Minimization File - A file that contains the policy statement; waste generation characterization; waste reduction goals; waste minimization meeting notes; and the periodic program summary. The file is used to demonstrate and document Chempro's waste minimization efforts.

Additional information on each of these program elements, as well as the program background and regulatory requirements is provided as follows.

REGULATORY REQUIREMENTS

The waste minimization certification requirements stated in sections 3002(b) and 3005(h) of the Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984, mandate the establishment of waste minimization programs for hazardous waste generators. The waste minimization certifications (effective September 1, 1985) require generators to certify two conditions; (1) the generator has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the generator to be economically practicable; and (2) the proposed method of treatment, storage or disposal is that practicable method currently available to the generator which minimizes the present and future threats to human health and the environment. These waste minimization certification statements appear on the uniform hazardous waste manifest.

In addition, the HSWA provision stated in RCRA section 3002(a)(6) requires generators to identify in biennial reports to the Environmental Protection Agency (EPA) two conditions; (1) the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and (2) the changes in volume and toxicity actually achieved in comparison with previous years, to the extent such information is available prior to 1984. Hazardous waste generators are required to submit these reports to EPA every two years.

With the passage of HSWA, Congress established a national policy declaring the importance of reducing or eliminating the generation of hazardous waste. Specifically, section 1003(b) states: "The Congress hereby declares it to be a national policy of the United States that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize present and future threat to human health and the environment." In this declaration, Congress established a clear priority for reducing or eliminating the generation of hazardous wastes (a concept referred to as waste minimization) over managing wastes that were "nevertheless" generated. It also established a preference for managing wastes so as to minimize threat to human health and the environment.

PROGRAM BACKGROUND

The Chempro Waste Minimization Program was originally established in August 1985 and consisted of a detailed report that outlined the preferred waste management strategies for industrial and hazardous wastes treated and stored at Chempro TSD facilities. The basis and scope of the original program was influenced by the fact that Chempro's principle business activity is to treat, store and dispose of customer wastestreams that are "nevertheless" generated. Consequently, Chempro is a hazardous waste generator by virtue of its principle business activity, and therefore, has little opportunity for hazardous waste source reduction.

The original waste minimization program expressed Chempro's ongoing effort to enhance environmental quality. It also expressed Chempro's commitment to utilize the best waste management practices available and to employ the highest technologies economically feasible. The program was reviewed and approved by the President of Chemical Processors, Inc.

Chempro is continually seeking better methods to handle, treat, and dispose of customer wastes and believes that the original program fulfills the spirit and intent of the certification requirements of RCRA sections 3002(b) and 3005(h). However, a more organized and better documented effort is being established with this updated waste minimization program.

(1) POLICY STATEMENT

The first element of the updated Chempro Waste Minimization Program is a company environmental policy statement endorsed by Chempro senior management. The policy statement declares the goal of continual reductions in the volume and toxicity of generated hazardous waste to the maximum extent economically feasible. The statement also encourages the use of the best treatment, storage and disposal methods practically available. In keeping with this policy, the statement outlines the following preferred waste management hierarchy for handling and treating customer wastestreams.

- (1) reduction
- (2) recycling
- (3) physical, chemical, and biological treatment

- (4) incineration
- (5) stabilization and solidification
- (6) secure landfill

Chempro believes that the company environmental policy and the preferred waste management hierarchy are consistent with EPA's goal waste minimization and reducing the present and future threat to human health and the environment. The company policy statement demonstrates upper management support for the program and is provided as an attachment.

(2) WASTE GENERATION CHARACTERIZATION

The second element of the Chempro Waste Minimization Program is waste generation characterization. The waste generation characterization is a periodic survey of the wastestreams received, the treatment processes, and the subsequent waste generated. The characterization is essentially an accounting system used to track the types, amounts and hazardous constituents of wastes received and processed at Chempro TSD facilities.

The waste generation characterization information is used to evaluate the efficiency of the current treatment processes and to investigate the feasibility of implementing alternative treatment technologies. Standard economic evaluations are typically performed on potential waste minimization projects before they are considered for implementation. Optimizing the wastestream treatment processes is consistent with the goal of reducing the threat to human health and the environment.

(3) WASTE REDUCTION GOALS

The third element of the Chempro Waste Minimization Program is the periodic determination and prioritization of specific waste reduction goals. In general, specific waste reduction goals are identified for each Chempro TSD facility based on the waste generation characterizations. However, other goals can be identified that aren't directly related to waste minimization. For example, legitimate goals can be achieving better waste tracking or obtaining more detailed wastestream information. The goals are useful in providing direction for Chempro's waste minimization efforts and are primarily identified at waste minimization meetings.

(4) WASTE MINIMIZATION MEETINGS

The fourth element of the Chempro Waste Minimization Program is periodic waste minimization meetings. Interdepartmental meetings between representatives from Regulatory Affairs, Engineering, and Operations are held on a periodic basis to discuss waste minimization. The meetings provide a formal mechanism in which waste reduction opportunities, goals, and solutions can be recognized.

(5) PROGRAM SUMMARY

The fifth element of the Chempro Waste Minimization Program is a periodic program summary. The program summary provides a synopsis of the waste minimization accomplishments for each TSD facility. The summary is written on a periodic basis and includes any treatment modifications that have occurred that reduced the volume and/or toxicity of generated waste.

(6) WASTE MINIMIZATION FILE

Finally, the sixth element of the Chempro Waste Minimization Program is a waste minimization file. This file contains the the policy statement; waste generation characterization; waste reduction goals; waste minimization meeting notes; and the periodic program summary for each TSD facility. A file is maintained at each TSD facility and is used to demonstrate and document Chempro's waste minimization efforts.

SUMMARY

The Chempro Waste Minimization Program involves an ongoing company effort to reduce the volume and toxicity of generated wastes and is consistent with the certification requirements of RCRA sections 3002(b) and 3005(h). The goal of the program is to achieve continual reductions in the volume and toxicity of generated wastes to the maximum extent economically feasible. The program contains the six aforementioned program elements.



A Burlington
Environmental Inc.
Company

CHEMPRO ENVIRONMENTAL POLICY STATEMENT

It is Chemical Processors, Inc. goal to achieve continual reductions in the volume and toxicity of generated hazardous waste to the maximum extent economically feasible. The Company shall use the best treatment, storage and disposal methods practically available and endorses the following preferred waste management hierarchy.

- (1) reduction
- (2) recycling
- (3) physical, chemical, and biological treatment
- (4) incineration
- (5) stabilization and solidification
- (6) secure landfill

The Company continually seeks better methods to handle, treat, and dispose of wastes and has established an updated Chempro Waste Minimization Program. The program is consistent with the certification requirements of RCRA sections 3002(b) and 3005(h) and the objective of reducing the present and future threats to human health and the environment.

signed,

Michael P. Keller,
Vice-President of Operations

Melvin N. Miller,
Vice-President of Engineering

Dennis F. Stefani,
Vice-President of Regulatory Affairs

CHEMICAL PROCESSORS, INC.

2203 Airport Way South, Suite 400 • Seattle, Washington 98134
(206) 223-0500 • FAX: 223-7791